

REMARKS

The present application has been limited to method claims, for business reasons. Accordingly, the only rejections in the Office Action mailed December 21, 2007, which remain of relevance are the rejections under 35 U.S.C. 103 and the doctrine of obviousness-type double patenting. Reconsideration of these issues, in view of the following discussion, is respectfully requested.

Rejection Under 35 U.S.C. 103

Claim 16 has been rejected under 35 U.S.C. 103 over Kitamura '249. Reconsideration of this rejection is respectfully requested.

As will be recalled, Kitamura discloses a paper sheet having a substrate formed of, i.e., wood pulp, and a recording layer containing a binder and an image light resistance-enhancing agent comprising "at least one member selected from the group consisting of phenolic compounds, boric acid, borate salts and cyclodextrine compounds." See paragraph 0165. Paragraph 0170 teaches that a combination of phenolic compound with a salt selected from salts of sodium, magnesium, calcium, aluminum, phosphorus, titanium, iron, nickel, copper, and zinc, for example, nitrates, sulfates, phosphates, hydrogen phosphates, citrates, propionates and chlorides of the above-mentioned elements, may be used as a light resistance-enhancing agent for the recorded images. More enhanced light resistance of the ink images recorded on the recording material can be obtained by using chlorides of divalent methods, especially, magnesium chloride or calcium chloride. While applicants maintain that Kitamura '249 at best teaches that boric acid, borate salts, chlorides of divalent metals etc., can be used alternatively (even reading paragraphs 0165, 0169 and 0170 together, it is clear that the disclosure does not teach simultaneous use of borate, boric acid and magnesium chloride), the Office Action argues that the disclosure of "at least one" suggests use of all. Regardless, as noted in the Office Action, the present materials are prepared by a cast coating method, not an inkjet recording medium obtained by coating by a dye coater (see paragraph 0154 of Kitamura '249). In paragraphs 0021 and 0022, Kitamura teaches that it is "very difficult to simultaneously keep both the surface gloss and the ink jet recording property of the cast-coating layer at satisfactory levels." Kitamura teaches, however, that this problem is solved by the invention described in Japanese patent publication 7-89,220, see paragraph 0023. This

Japanese application describes the use of a polymer having a glass transition temperature of 40°C or more, produced by a polymerization of monomers having an ethylinically unsaturated bond. The applicants in the '220 application list, as such polymers, acrylic ester of C₁-C₁₈ such as methyl acrylate, ethyl acrylate, butyl acrylate, 2-ethylhexyl acrylate, lauryl acrylate, 2-hydroxyethyl acrylate, glycidyl acrylate, polymers obtained by polymerizing ethylenic monomers such as styrene, a methyl styrene, vinyl toluene, acrylonitrile, vinyl chloride, vinylidene chloride, vinyl acetate, vinyl propionate, acrylic amide, N-methylol acrylic amide, ethylene, and butadiene ([0018] of the reference). Polyvinyl alcohol, borate and boric acid as employed herein are not disclosed in this reference. Accordingly, it is submitted that the casting process in fact disclosed in Kitamura does not suggest the simultaneous use of the materials recited in the present claims, much less the process wherein coating of a recording layer solution of alumina and polyvinyl alcohol on a support is followed by immediately coating of a treatment solution of the boric acid, borate and water soluble magnesium salt, and certainly not conducting the process so as to achieve the recited gloss values.

In paragraph 0023 of Kitamura, noted above, two other references of cast-coating are disclosed, Japanese publications 2-274,587 and 10-250,218. The '587 application discloses a recording paper comprising a recording layer on a substrate, in which the outer most layer of the recording layer contains pigments of synthetic silica and colloidal silica together with water soluble binder. This application discloses that the outer most layer is treated with an aqueous solution containing cationic polymer electrolyte, pressing the recording layer on a heated mirror surface while the outer most layer is still wet, and drying. Thus, the use of silica, colloidal silica and cationic polymer electrolyte also does not suggest the simultaneous use of materials herein, nor the use of the alumina/polyvinyl alcohol solution with immediate coating by the boric acid, borate and water soluble magnesium salt. Moreover, the '218 application discloses an ink jet recording medium comprising a coated layer on a support, wherein the coating layer contains a gloss producing layer having a solvent absorbent property, containing a polymer soluble in isoparaffin-hydrocarbons. This polymer soluble in isoparaffin-hydrocarbons, is defined as one which can admix with such isoparaffin-hydrocarbons at room temperature. See paragraph 0018 of this application. Examples include poly(1, 3-diene) such as polybutadiene and polyisoprene, polymers such as polyalkyl (more than C₄) vinyl ether, vinyl polyalkyl (more than C₄) carboxylate, polyalkyl (more than

C₄) (meth)acrylate, polyalkyl (more than C₆) (meth)acrylate, polyoxyalkylene (more than C₄), polydimethylsiloxane, petroleum resin (C₅ series, C₆ series), novolac resin, gutta-percha etc.

In short, it is submitted that the cast coating processes disclosed in Kitamura either directly or indirectly fail to suggest that presently claimed, and the gloss values achieved thereby. Withdrawal of the rejection is respectfully requested.

Double Patenting

Claim 16 has been rejected under the doctrine of obviousness-type double patenting over U.S. patent 7,033,016 taken with Kitamura. This rejection is moot, in view of the accompanying terminal disclaimer.

All claims of the application are submitted to be in condition for allowance. However, if the Examiner has any questions or comments, he is cordially invited to telephone the undersigned at the number below.

No fee is believed due with this response, however, the Commissioner is hereby authorized to charge any fees associated with this response or credit any overpayment to Deposit Account No. 13-3402.

Respectfully submitted,

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